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frontiers

Issue 15 March 1989



Strange rocks in Spooky Valley intrigue scientists



Isolated pinnacles lend a mysterious air to Spooky Valley, northwest of Fairbanks.

Research natural areas saved for study

Spooky Valley sparks scientific interest

In the fall when the alpine tundra turns red and the evening sun shines from just above the horizon, the landscape looks like a scene from Mars. Rocks rise like spines from the flat valley floor. Spooky Valley lives up to its name.

This interesting valley is one of the eight research natural areas in BLM's Kobuk District. It was selected for this designation because of its interesting geological features. Granite tors, or isolated rocky peaks, jut from the slopes of the basin-like valley. Tundra, low sedges and shrubs surround the tors.

Many species of birds use the valley in the summer, including

sandpipers, cliff swallows, golden eagles and northern shrikes. Research Natural Areas are part of the nationwide system of ecological reserves. They provide baseline areas as a point of comparison for the effects of human activities. They are also sites for the study of natural processes and for gene pool reserves, especially of rare and endangered species. They are intended to preserve in a natural state unique areas, unusual areas, or areas with classic examples of common vegetation, wildlife or geology.

The 10,800-acre Spooky Valley is the largest of the eight research natural areas in the Kobuk District.

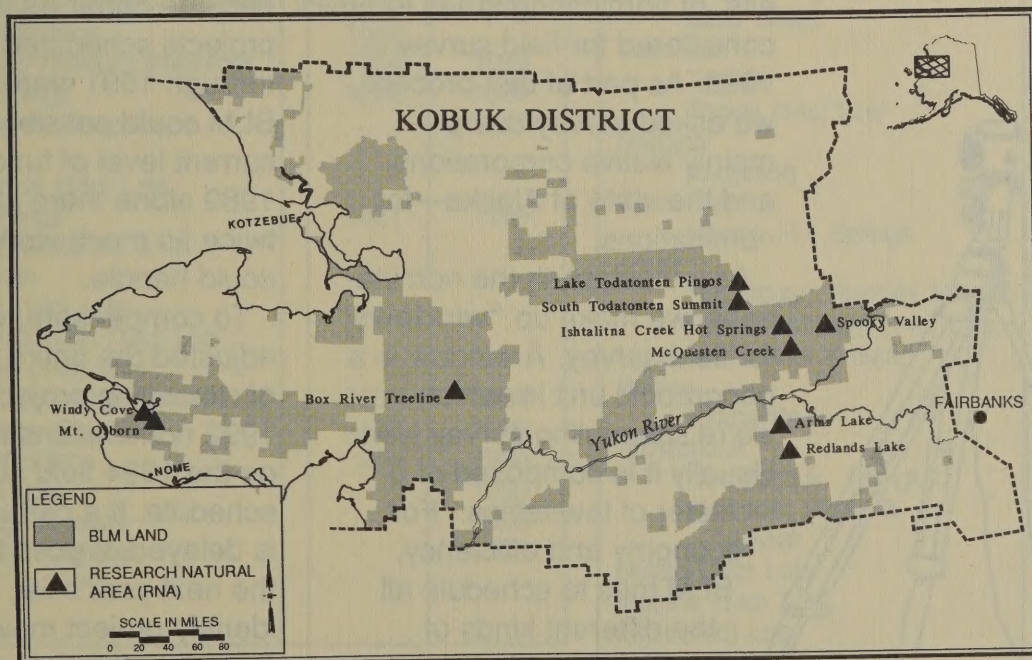
The 1,100-acre Ishtalitna Hot Springs area and the 3,990-acre McQuesten Creek area were designated because of undeveloped

hot springs. Hot springs support unique algae and bacterial growth, and some plant species are found at hot springs much farther north than their normal ranges. Few undisturbed hot springs are left for scientific study.

Other research natural areas in this district are Arms Lake, Box River, Redlands Lake, Lake Todatonten Pingos and South Todatonten Summit. Each one contains one or more features worth preserving for future study. At present only three tenths of one percent of the 16 million acres in the Kobuk District have been so designated, but more are under consideration.

Spooky Valley may look like something from outer space, but it will serve as a special laboratory on earth, helping scientists understand how an ecosystem functions.

—SM/JM



Map shows location of the eight research natural areas in BLM's Kobuk district.

BLM sets field survey priorities

The charts on the next two pages show the Bureau of Land Management's field survey priorities for 1989 through 1994. Before the ownership of federal land can be transferred, BLM must produce an officially approved survey for each township or parcel. This means surveying each township that goes to the State as part of its statehood entitlement, each township that goes to a Native group under the Alaska Native Claims Settlement Act, and each parcel that goes to an individual Native as a Native Allotment.

Every year BLM surveys about 1,000 to 1,500 miles of township boundaries and from 800 to 1,000 Native Allotment parcels.

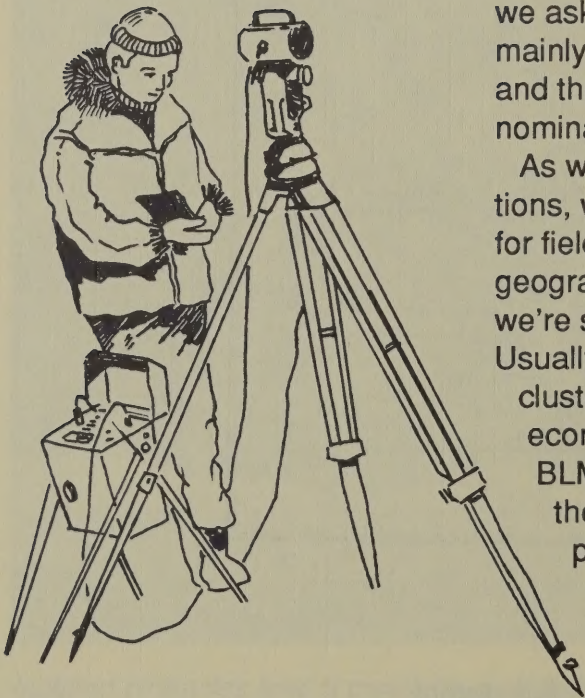
We use a 5-year nominating process to select the areas to be surveyed each year. In 1988, for example, we went through a complex procedure, called the Patent Plan Process, of nominating areas to be considered for field survey in 1992. As part of that process, we asked survey users—mainly Native corporations and the state of Alaska—for nominations.

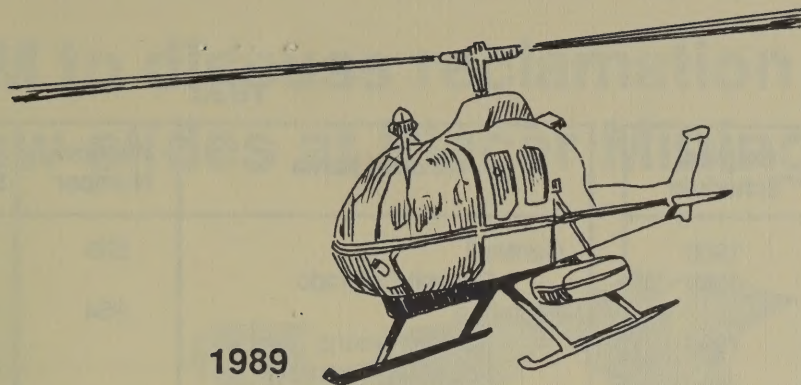
As we establish the nominations, we make up “**windows**” for field survey. A window is a geographic unit in which we're scheduling survey work. Usually it is composed of a cluster of townships. For economy and efficiency, BLM tries to schedule all the different kinds of projects ready for surveying within one

window to be surveyed at one time.

The proposed nominations list was adopted by BLM after it was reviewed in October 1988 by the Interagency Cadastral Coordination Council, which is made up of representatives of federal and state agencies and Native organizations. At the same time it became apparent that the 77 projects scheduled for 1989 through 1991 were more than BLM could possibly do at the current level of funding. In 1989 alone there was almost twice as much work as we could handle.

To compensate, we have adjusted the entire schedule of remaining projects. The 1992 nominations now appear on the 1994 field survey schedule. If a certain project is delayed, it goes to the top of the next year's list. You can identify project movements by reviewing the right-hand columns on each year's list.





1989

1990

Window Name	Window Number	Original Schedule
Alaska Railroad/Eklutna Eklutna (14c) Lots Powder Reserve/Area Birchwood Airport Eklutna Gravel Reserve Moose Townsite Lots Sutton Railroad Spur	537	1989
Haines/Skagway Inholdings	1600	1989
Dillingham Inholdings New Stuyahok (14c) Lots South Naknek (14c) Lots Lewis Point (14c) Lots Dillingham (14c) Lots	95	1988
Lime Village Inholdings	287	1988
Unalakleet Township Surveys	1319	1988
Cordova/Eyak Township Surveys Tatitlek (14c) Lots	829/1496	1989
Juneau Township Surveys	264	1989
Delta/Salcha Township Surveys	85	1989
Sealaska/Wrangell Twnshp. Surveys	542/1790	1989
Quinhagak Inholdings	1562	
Goodnews Bay-Platinum Inholdings	1704	1989
Grayling Inholdings Holy Cross, Shageluk, & Anvik	1230	1989
Holy Cross (14c) Lots		
Golovin Inholdings Council, White Mt. & Solomon	1321	1989
Council (14c) Lots White Mountain (14c) Lots Solomon (14c) Lots		
Kohitna River Township Surveys	1234	1989
Fairbanks Mining Claims	122	1989
Fire Island Inholdings	259	1989
Deering (14c) Lots		1989
Upper Kalskag Townsite		1989
Lower Kalskag Townsite		1989

Window Name	Window Number	Original Schedule
Chickaloon Hatcher Pass	924	1989
Egegik Townsite Egegik (14c) Lots		1989
Sitka Green Lake, Takats Lake	130	1989
McGrath Takotna, Telida, Nikolai McGrath (14c) Lots Telida (14c) Lots Nikolai (14c) Lots	1914	1989
Central, Circle Hot Sprs.	1259	1989
Ambler Kobuk, Shungnak Ambler Townsite Kobuk (14c) Lots	923	1989
Beaver Stevens Village Townsite Rampart Townsite	1828	1989
Fort Yukon Birch Creek	1829	1989
Twin Hills Togiak Togiak (14c) Lots	1830	1989
Nenana Anderson	1831	1989
Kantishna Manley Hot Springs	1843	1989
Aniak Napaimute, Russian Mission Russian Mission (14c) Lots	1833	1989
Upper and Lower Kalskag	1834	1989
Bettles Evansville	1835	1989
Atmautluak Nunapitchuk, Kasigluk, Akiachak, Akiak, & Tuluksak	1836	1989
Nulato (14c) Lots		1988
Illiamna (14c) Lots		1988
Ekuk (14c) Lots		1988
Portage Creek (14c) Lots		1988
Clarkes Point (14c) Lots		1988
Other Townsite Projects		

1991

Window Name	Window Number	Original Schedule
Eek	1837	1989
Kwigilligok	1838	1989
Kongigannak		
Kodiak Part II	1693	1990
Ouzinkie (14c) Lots		
Chugach East Part I	1759	1990
State Land		
Miles Lake		
Copper River		
Eyak		
Controller Bay		
Bering River		
Carbon Mountain		
Katalla		
Chistochina	1867	1990
Gulkana/Gakona		
Gulkana Townsite		
Copper Center/Tazlina/ Tonsina		
Emmonak	1233	1990
Sheldon Pt.		
Alakanuk		
Alakanuk Townsite		
Kotlik		
Hamilton		
Bill Moores		
Chuloonawik		
Other Townsite Projects		
Other 14(c) Projects		

1993

Window Name	Window Number	Original Schedule
Chugach West	1199	1991
Tuxedni/Iniskin/ Johnson Tract	1696	1991
Northway	1212	1991
Healy South	1244	1991
Manokotak/Olsonville	1196	1991
Chignik/Chignik Lagoon/ Chignik Lake	1525	1991
Perryville Townsite		
East Kenai	2036	1991
Mid-Southeast	1348	1991
Lake Louise	96	1991
Kipnuk/Chefornak	2037	1991
Nenana	150	1991
Huslia	1238	1991
Buckland/Deering	1887	1991
Wood River/Tikchik	1349	1991
Other Townsite Projects		
Other 14(c) Projects		

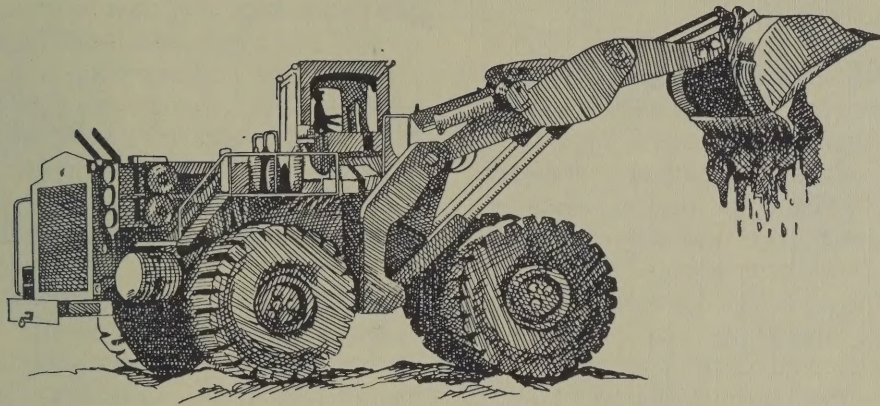
1992

Window Name	Window Number	Original Schedule
Cantwell	539	1990
Summit/Colorado		
Kotzebue	954	1990
Noatak/Kivalina		
Kotzebue Townsite		
Tanana	2034	1990
Minto	1695	1990
Minto (14c) Lots		
Chalkyitsik	1453	1990
Ketchikan	1947	1990
Seward Peninsula South	128	1990
Marshall/Ohogamiut	2028	1991
Russian Mission		
Tok/Tanacross	1765	1991
Mentasta Lake		
Central Seward Peninsula	1890	1991
Ekwok/Koliganek/ New Stuyahok	1390	1991
Koliganek (14c) Lots		
Other Townsite Projects		
Other (14c) Projects		

1994

Window Name	Window Number	Original Schedule
Alatna/Allakaket	1231	1991
Stevens Village	314	1991
Nikolski/Atka/Akutan/ Sanak Island	1201	1991
American Summit	557	1991
Rampart	874	1991
Summit Lake/ Pipeline Corridor	1391	1991
Chitina		1992
Bethel South	2029	1992
Oscarville		
Napakiak		
Napaskiak		
Kwethluk South		
Tyonek		1992
Anaktuvuk Pass	78	1992
Arctic Slope		
Point Lay	347	1992
Bering Land Bridge	1915	1992
Shishmaref		
Mekoryuk	961	1992
Chandler Lake	2171	1992
North Yukon	541	1992
Minchumina	2003	1992
Puget Bay	918	1992
Other Townsite Projects		
Other 14(c) Projects		

BLM to discuss reclamation techniques, show slides at Placer Mining Conference



BLM will present information and slides on reclamation procedures and methods at the Alaska Placer Mining Conference in Fairbanks March 29.

In response to concern over possible environmental damage, BLM has increased its compliance inspections and enforcement of mining operations and reclamation projects on the public lands it manages in Alaska. BLM will share the reclamation information it has documented to help miners tailor their operations to more efficiently meet requirements of federal surface management regulations.

Miners turned over Alaskan ground for almost a hundred years in search of gold, leaving most reclamation to nature. Surface mining regulations that went into effect in January 1981 require miners to reclaim disturbed areas by reshaping tailings and overburden and spreading topsoil to encourage natural vegetative succession, and to rehabilitate fisheries and wildlife habitat. Some of the factors that must be considered in reclamation are the slope of the area, the amount of water involved, the character of topsoil and subsurface material, and techniques used to reshape overburden and spread topsoil.

Federal regulations are written to allow individual managers and miners to adapt them to individual

circumstances. BLM works with individual miners on reclamation methods, taking into account the type of operation, the terrain involved and specific environmental conditions. Since the miner spends every day of the mining season working the site, he is in a good position to know the characteristics of the site and can help determine the best methods to use.

The goal of reclamation is to limit the time and extent of surface disturbance so erosion is minimized. Most miners have developed economically efficient methods of reclaiming as they operate, often using the dirt from a new cut to fill an old cut. As they strip the area, they make separate stockpiles of the fertile topsoil and the sterile subsoil—frozen muck between the nutrient-rich topsoil and the layers of gravel. Fine and coarse aggregates—washed gravels—are stockpiled separately, as close as possible to where they will be used in the final reclamation process.

When mining is finished, the miners use their aggregates for several purposes, including reinforcement of streams, armoring settling ponds and reshaping the disturbed areas. The stockpiled sterile subsoil is used for recontouring the area. Over that is spread the topsoil that contains seeds, willow roots and bacteria that enhance revegetation.

BLM field compliance inspectors have found that mining operators are willing to try new methods, and are helpful with documenting successful reclamation techniques.

It has been found that natural revegetation has been more successful in areas where the operator has left slightly rough ground, terraces and tractor tracks that will catch seeds, windblown organic material and moisture. Nevertheless, different reclamation procedures are necessary in different climates and terrains.

Wetlands are an important aspect of the Alaskan environment, and settling ponds associated with placer mining often enhance the wetland system. Generally within a year following reclamation, vegetation has been re-established, and some of the ponds are used by ducks and shore birds.

Beavers have moved into and helped stabilize some ponds, encouraging wetlands development.

BLM is compiling a data bank documenting natural revegetation in different terrains and climates. This data will help miners rehabilitate public lands after completing mining operations.

"We've come a long way since implementation of the surface mining regulations in 1981, due to cooperative efforts of the mining industry, other state and federal governments, and BLM," says Steese/White Mountains District Manager Don Runberg. "Through their combined efforts, we expect reclamation techniques and mining technology to keep improving so that impacts to the environment will continue to be mitigated."

—SDW



frontier flashes

The **Bureau of Indian Affairs** contributed \$20,000 to BLM's program for staking easements and transportation routes in the National Petroleum Reserve in Alaska during the summer of 1988. Routes are now complete between Barrow, Wainwright, Atkasuk and the Kogru River northwest of Nuiqsut. Over the last three years, BLM's Arctic District staff has placed 1,500 yellow markers along trail routes.

The Bureau of Land Management is starting a land use plan for the Alphabet Hills/West Fork Gulkana River, the Clearwater Mountains, and the Bering Glacier areas of **south central Alaska**. When completed, the South Central Resource Management Plan and Environmental Impact Statement will be the basis for future BLM land use decisions and management actions. A series of public meetings will be held this spring to identify the issues and concerns that should be addressed in the plan. For more information contact

Lynette Nakazawa at the BLM-Alaska State Office, phone (907) 271-556; or Kathleen Mushovic at the BLM Glennallen District Office, Glennallen, AK 99588, phone (907) 267-1369.

A BLM **draft management plan** issued for the **Tozitna River** watershed provides for protection of salmon spawning areas. A tributary of the Yukon, the Tozitna River heads in the Ray Mountains 100 to 150 miles northwest of Fairbanks.

The plan would require miners to have an approved plan of operations, would control cross-country movement of vehicles over 1,500 pounds and would not allow commercial timber operations.

Copies of the draft plan are available from the BLM Public Affairs Office at 1150 University Ave., Fairbanks, AK 99709-3844; phone (907)474-2232.

The final **environmental impact statement** has been published on **placer mining in the Fortymile River** watershed. This is the third of four impact statements the BLM is preparing for mining in several areas near Fairbanks.

A recently completed two-year study by the Bureau of Land Management recommends that 3 million acres of northern Alaska be opened to environmentally sound **oil and gas exploration and development** north of 68 degrees latitude and east of the National Petroleum Reserve-Alaska. It also recommends that about 41 thousand acres along the Nigu River be considered for wilderness designation and about 3.6 million acres be opened to mineral location.

The study, "Section 1001 Report Findings and Recommendations," was required by the Alaska National Interest Land Conservation Act of 1980.

BLM and Alaska Department of Fish and Game biologists working on a **caribou study** north of Fairbanks have already gotten one life-saving benefit from the project. The second day after they collared one young calf, radio signals indicated he wasn't moving. The study team found him mired in mud, pulled him out and sent him on his way. They were sure he would have died if they hadn't saved him.



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